

LINUX ASSIGNMENT QUESTIONS

BASIC LEVEL

1. What command is used to get the IP addresses of all interfaces on a server?
Ipconfig/ifconfig
2. What is the purpose of "mv" command?
move from Sources to Destination.
3. Which command is used to create a new empty file?
touch "file name"
4. Which command is used to display the contents of a directory?
ls
5. Which command is used to display all the file names along with their types of the current directory?
ls -la
6. Which command is used to clear the terminal?
clear
7. What are daemons?
It's a service process which runs in a back ground.
8. Which command is used to move to the parent directory?
cd ~
9. What does echo command do?
Echo command is used to display the string/line of text that is passed as an argument
10. How to display content of a file?
cat "file name"
11. How to identify which shell you are using?
echo "\$SHELL"
12. How do you check if a particular service is running?
service servicename status
13. What is the command to run a program with elevated permissions?
If you prefix "sudo" with any Linux command, it will run that command with elevated privileges.
14. Which command is used to display the path of the current working directory?
pwd
15. How to delete a directory forcefully?
rm -rf "directory name"
16. Which command is used to switch from superuser to normal user?
su username

17. How to switch to superuser (root) with elevated permissions?

sudo su

18. How to determine the type of a file?

file "file name"

INTERMEDIATE LEVEL

1. What are the different modes when using VI editor?

Command Mode – In this mode we can open or create files, specify cursor position and editing command, save or quit our work.

Entry Mode – In this mode we can enter the text into the display on our screen to edit the file.

Last-Line Mode – This mode enables us to perform tasks such as saving files and executing commands.

2. Which command is used to create multiple directories simultaneously?

mkdir dir1 dir2 dir3

3. What is LILO?

It stands for Linux Loader which is a boot loader image which initializes the memory, RAM and loads the actual kernel.

4. How cd ~, cd / and cd - are different from each other?

cd or cd~ will always put the user in their home directory.

cd / used to change directory to the root directory.

cd – will switch the user to the previous directory.

5. What is a grep command?

It is used to search for a string of characters in a specified file.

6. If we are in the directory X and we are running rmdir X being in that directory X. Will this command successfully remove the directory or not?

No, we cannot delete the directory. We should always be outside the directory to remove or delete it.

7. What are the contents of /usr/local?

It contains all the installed applications and binaries for a particular user.

8. Which command is used to display the current username?

whoami

9. What command is used to change your password?

passwd

10. How to find the difference in two configuration files?

diff

11. How to find where a file is located in Linux?

find "path of the file"

12. Which command shows the users that are logged in?

who

13. How to forcefully stop a process which is running in the background?

sudo kill "process id"

14. Which command is used to list the name of files starting from any particular alphabet or string?
ls -d "string name"
15. How to move multiple files of the same extension to a different directory?
mv *.file extension -t "destination folder path"
16. What command would you use to check how much memory is being used ?
top
17. Which command is used to display the list of content in reverse order?
ls | sort -r
18. What command is used to show how long it's been since the server was rebooted?
last reboot
19. What command is used to change the ownership of a file?
chown "name of new owner" "filename"

ADVANCED LEVEL

1. How to see the list of mounted devices on a Linux system?
cat /proc/mounts
2. How to check disk usage in terms of kilobytes(K), megabytes(M) and gigabytes(G)?
df – kilobytes(K)
df -h - gigabytes(G)
df -m - megabytes(M)
3. What is Swap Space? What is a typical size for a swap partition in Linux?
Swap space is used when the amount of physical memory (RAM) is full. If the system needs more memory resources and the RAM is full, inactive pages in memory are moved to the swap space.
So, if a computer had 16 GB of RAM, then a swap partition of 4 GB is an optimum size.
4. How would you schedule a task in Linux?
crontab is the tool used in Linux to schedule the task.
Using command crontab -e it will open the crontab file in editor where we can provide the task or process name we need to schedule as in the below format.
<minute> <hours> <day_of_month> <month> day_of_week> <command_to_run>
5. How these commands would be working try and explain (files contain "hello" word) :
 - **grep -v -i hello file1.txt**
It exclude all the lines that contain hello word from file1.
 - **grep -i hello file2.txt**
It display/list all the lines that contain hello word from file2
 - **grep -A 2 hello file2.txt**
It prints all the lines that contain hello word and the two lines after the match from file2.
 - **grep -C 4 hello file1.txt**
It prints all the lines that contain hello word and the four lines before and after the match from file1.
 - **grep -B 3 hello file1.txt**
It prints all the lines that contain hello word and three lines before the match from file1.

- `ps -ef | more`
list all the process in the machine with more detailed information
- `awk '{print $2,$5;}' employee.txt`
It prints the second word of each line.

6. What is the export command used for?(Give Example)

It is a bash shell BUILTINS command. It marks an environment variables to be exported to child process.

Example: To view all the exported variables - `$ export`

To view all the exported variables on current shell- `$ export -p`

To export shell function - `$ export -f "fun name"`

7. Explain the redirection operator?

When executing a command, we can change the standard input/output devices.

8. Which command is used to review boot messages?

dmesg

9. Which command is used to change the permissions of a file?Explain its usage?

chmod

The chmod command allows us to change the permissions on a file using either a symbolic or numeric mode or a reference file.

10. Which command would you use to create a file system on a new hard drive?

mkfs

11. How to compress files in Linux?

gzip/xtar

12. Which file is used to automatically mount file systems on boot?

fstab file

13. Find out the purpose of each of the following commands:

- **shutdown - The shutdown command in Linux is used to shutdown the system in a safe way**
- **diff – It compares the content of the text files.**
- **sort - It supports sorting alphabetically, in reverse order, by number, by month and can also remove duplicates.**
- **ps - It enables you to check the status of active processes on a system, as well as display technical information about the processes.**
- **kill – It is used to terminate processes manually.**
- **mount - The mount command instructs the operating system that a file system is ready to use, and associates it with a particular point in the overall file system hierarchy and sets options relating to its access.**
- **nano - nano is a simple terminal-based text editor.**

14. What are symbolic links? How do you create one using command?

A symbolic link consists of a special type of file that serves as a reference to another file or directory.

`$ ln -s [options] file link`

15. How would you copy a file or a directory from your system to another system on the same network?

`scp "source file name" "destination file name"`